

JOB DESCRIPTION

POST TITLE:	Research Associate or Research Fellow
DEPARTMENT:	Warwick Business School
SUB-DEPARTMENT:	Operational Research and Management Sciences Group
POST RESPONSIBLE TO:	Dr Nalan Gulpinar
SALARY:	Research Associate £22,332 – £25,135 or Research Fellow £25,888 pa
REFERENCE NUMBER:	59802-088
CLOSING DATE:	26 August 2008

JOB PURPOSE

You will contribute to the achievement of the areas of the research project, which include the design of generic computational framework for autonomous decision-making and mission planning under uncertainty. The project is also concerned with development of computational algorithms that support multi-agent decision-making process, improve task/team performance and, consequently, accomplish successful mission operations using Constraint programming and/or optimization techniques.

PRINCIPAL ACTIVITIES

1. To plan and manage own research activities within the project in collaboration with the principal investigator, and another researcher.
2. To carry out literature search using citation databases and other resources relating to the project objectives.
3. To develop real-time multi-agent decision making and mission planning models.
4. To design and implement computational algorithms for solving mission planning and multi-agent decision-making problems under uncertainty and develop software.
5. To work closely with the research co-ordinator and another researcher in setting up and running group meetings, in attending and contributing to meetings of the project team and in organising the dissemination of the project.
6. To contribute to presentations for workshops, conferences and research meetings and to the writing up of the project work to the sponsor, appropriate peer reviewed conferences and journals and the final report.
7. To engage in continuous professional development.
8. To undertake external commitments as appropriate, which reflect well and enhance the reputation of the University.
9. To ensure compliance with health and safety in all aspects of work.

PERSON SPECIFICATION

POST TITLE: Research Associate

DEPARTMENT: Operational Research and Management Sciences Group

The Person Specification focuses on the knowledge, skills, experience and qualifications required to undertake the role effectively.

REQUIREMENTS The postholder must be able to demonstrate:	ESSENTIAL (E) OR DESIRABLE (D) REQUIREMENTS (please indicate)	MEASURED BY: a) Application form b) Interview c) Presentation d) References
Good honours degree (or equivalent) in a numerate subject.	E	a
MSc in a relevant subject.	D	a
Working towards a PhD in Operational Research or Computer Science or a related discipline, or close to completing it.	E	a, d
Academic background in Operational Research, or Constraint Programming.	E	a
Experience in agent-based modeling, optimization or constraint programming based software development	E	a, b, c, d
Experience in military-related research	D	a, b, c, d
Proficiency with literature search using citation databases and other resources.	E	a, b, d
Excellent communication skills (oral and written).	E	a, b, c, d
Good interpersonal skills.	E	a, b, c, d
Ability to work independently and as part of a team on research programmes.	E	a, b, d
Ability to initiate, plan, organise, implement and deliver programmes of work to tight deadlines.	E	a, b, d
Ability to attend national and international workshops and conferences.	E	a, b

Please note: due to its nature, this role will involve travel throughout the World on a regular basis.

In accordance with the national agenda in higher education to modernise pay and grading structures, the University of Warwick has completed a significant programme of change that has seen the introduction of a new pay spine and single job evaluation scheme. The work commenced in September 2004 and was communicated and implemented across the University in August 2006.

All salaries detailed within this recruitment document are post implementation and will be subject to normal salary progression as defined by the relevant terms and conditions of service.

In conjunction with this, the University is now working towards harmonising terms and conditions. Further details on this phase of the project will be available shortly.

PERSON SPECIFICATION

POST TITLE: Research Fellow

DEPARTMENT: Operational Research and Management Sciences Group

The Person Specification focuses on the knowledge, skills, experience and qualifications required to undertake the role effectively.

REQUIREMENTS The postholder must be able to demonstrate:	ESSENTIAL (E) OR DESIRABLE (D) REQUIREMENTS (please indicate)	MEASURED BY: a) Application form b) Interview c) Presentation d) References
Good honours degree (or equivalent) in a numerate subject.	E	a
MSc in a relevant subject.	D	a
Have completed a PhD in Operational Research or Computer Science or a related discipline.	E	a, d
Academic background in Operational Research, or Constraint Programming.	E	a
Experience in agent-based modeling, optimization or constraint programming based software development	E	a, b, c, d
Experience in military-related research	D	a, b, c, d
Proficiency with literature search using citation databases and other resources.	E	a, b, d
Excellent communication skills (oral and written).	E	a, b, c, d
Good interpersonal skills.	E	a, b, c, d
Ability to work independently and as part of a team on research programmes.	E	a, b, d
Ability to initiate, plan, organise, implement and deliver programmes of work to tight deadlines.	E	a, b, d
Ability to attend national and international workshops and conferences.	E	a, b

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Further Particulars

The University

The University of Warwick is arguably the most successful of UK universities founded within the past half-century, and has earned an outstanding reputation both for research and teaching. Warwick is comfortably ranked within the top ten of all UK university newspaper rankings including 6th in the most recent Sunday Times Good University Guide.

Founded in 1965 Warwick has been a unique and uniquely successful British university combining a “can-do” entrepreneurial spirit with a commitment to absolute academic excellence. Professor Nigel Thrift, Warwick’s 5th Vice-Chancellor, was appointed in 2006 to transform the University from a leading university within the UK to become one of the world’s top 50 universities by 2015. A new university strategy has been launched as a result of extensive consultation with staff, students and Warwick’s many external stakeholders, and is making good progress.

Warwick employs over 5,000 members of staff, of whom 2,400 are academic and research staff spread across 28 academic departments and 30 research centres; 91% of the academic staff are in departments with research ratings of 5 or 5*. Of the 24 departments assessed under the subject review process, 22 were rated excellent (or scored 21 or more out of 24) for teaching quality.

The University of Warwick has a total student population of 17,000 (full-time equivalent) of whom approximately 11,000 are undergraduates and 7,000 are postgraduates. Nearly one-quarter of Warwick’s students are international, helping to create a vibrant and cosmopolitan campus environment which is valued and celebrated by the University.

The University’s campus, located on a 400-acre site spanning the south west boundary of Coventry and the county of Warwick, has an open and pleasant outlook and was voted “Best University Campus” in a national student poll published by the Times Higher Education Supplement in 2006. The campus offers excellent sporting facilities, including a swimming pool, a newly refurbished gym, a climbing wall, an all weather running track and acres of football and rugby pitches. An indoor tennis centre has recently been opened. The renowned Warwick Arts Centre is the largest outside London with the Mead Gallery showing visiting collections of contemporary art, a concert hall, two theatres and a cinema.

The University of Warwick is ideally placed for easy access to London (just over one hour on the train), close to the picturesque towns of Warwick, Kenilworth and Leamington Spa and about 45 minutes from the centre of Birmingham. The University is in the heart of Shakespeare’s Warwickshire with historic Stratford-upon-Avon, the Royal Shakespeare Company and the Cotswolds all within easy reach.

The University of Warwick has a turnover approaching £350 million. The University continues to invest heavily in its campus infrastructure and environment and its future capital plan includes: a new student union building; a 500 bed student residency; new hotel accommodation for visiting academics; a refurbishment of the Library; a further extension to the Warwick Business School; and a state of the art Warwick Digital Laboratory, the foundation stone for which was laid by Prime Minister Gordon Brown in May 2007. Capital investment in the next year alone will total £35 million.

Further details about the University of Warwick can be found at <http://www.warwick.ac.uk>.

The Managerial and Administrative Structure of the University

The University’s administrative and managerial structure is headed by the Vice-Chancellor, supported by the Deputy Vice-Chancellor, the Registrar, the Deputy Registrar and the Finance Director. However, as with all such structures, the informal lines of decision making and the sharing of responsibility for planning and strategy flatten the hierarchy. Institutional level decisions are initially

made by a group comprising academics and administrators who form the Senate Steering Committee which operates much along the lines of a weekly cabinet for the University.

The Registrar, Mr Jon Baldwin, is responsible for the administration of the University and is supported in this task by a team of Senior Officers, each of whom is responsible for a key area and associated offices of University administration: the Academic Registrar, the Estates Director, the Director of Human Resources and Commercial Activities, the Director of Campus Affairs, the Director of IT Services, the Director of Communication and Strategy, the Director of the International Office, the Director of Research Support Services and the University Librarian. A number of office heads and directors report in turn to these Senior Officers. To ensure overall co-ordination between and across the University's administration, all administrative posts within academic departments have a "dotted line" reporting to the University Registrar as well as the Department in which they are based.

The Post

The research project will combine operational research and constraint programming approaches for modelling and solving multi-agent decision making and mission planning problems under uncertainty. The main objective of the project is to design of autonomous team structure and assess the contribution of an individual member within a team to achieve task/team goals, and analyse real-time decision making for team coordination in a context in which different teams are pursuing different in favour or conflicting goals. The project is also concerned with development and implementation of computational algorithms that support decision-making process, improve task/team performance, and consequently, accomplish successful mission operations.

WBS School Profile

Warwick Business School is one of the largest and most highly-regarded centres of excellence of its kind in Europe, with an outstanding performance in both research and teaching. A department within the Faculty of Social Studies at the University of Warwick, the School has a total of 350 staff and over 7,500 students. It has seventeen major study programmes, a cluster of specialist research centres, and a large and growing Executive Development programme. Three further Specialist Masters courses were launched at the start of the 2005-6 academic year, and a Masters in Management commenced in October 2006.

Created in 1967, it now has an annual turnover in excess of £37 million, 84% of which is earned income from research and teaching, the rest coming largely from Higher Education Funding Council (HEFC) grants.

In pursuit of its mission to command an international reputation for high quality education and research in management and business in both the public and private sectors, the School has the following objectives:

- To provide high-quality educational programmes at undergraduate, postgraduate and post-experience levels;
- To engage in high-quality research with a potential for policy impact and practitioner relevance;
- To seek innovation in programmes, curriculum and learning, through the interaction of teaching, research and practice and the use of appropriate technology;
- To focus development on high value-added activities, whether financial or academic;
- To enhance the international profile of the School;
- To seek to recruit high-quality staff at all levels, and provide a supportive environment to enable them to achieve their potential.

External Recognition of Excellence

The School is one of the most highly rated European Business Schools in terms of both its research and its teaching, viz.:

- (a) **Research:**
In the most recent HEFC exercise (2001), Warwick Business School was 1 of only 3 business schools to achieve the highest 5* ranking for research of international excellence, with more faculty assessed than any other UK business school.
- (b) **Teaching:**

- (i) Top-rated as 'excellent' in the most recent (1994) teaching quality assessment by the UK government's Higher Education Funding Council.
 - (ii) The Undergraduate Programme at WBS has been ranked on average in the top three for Business and Management for 12 years in succession in the Times Good University Guide.
 - (iii) WBS is regularly highly ranked in the influential rankings of MBA programmes by the Financial Times. For example, the Warwick Executive MBA is currently ranked 17th in the world, 6th in Europe and 4th in the UK.
- (c) **Other Recognition**
- (i) Warwick Business School is the first UK school to have been awarded accreditation by the premier management education accrediting bodies in the USA, Europe and the UK.
 - AACSB International – The Association to Advance Collegiate Schools of Business
 - EQUIS – the European Foundation for Management Development's quality inspectorate
 - AMBA – the Association of MBAs

thus becoming the first UK School to be accredited by all three major global quality organisations.
 - (ii) The School is a member of PIM – Partnership in International Management, a global network of 52 reputed business schools formed to enable international exchange of postgraduate students and faculty, and the development of joint ventures. Membership is by invitation only.

Staff

There are currently 186 academic and research staff supported by 180 professional and administrative staff who manage and support all aspects of School and programme services and infrastructure.

The Business School is grouped into nine main subject groups, 8 research centres and six special interest groups:

Subject Groups

Accounting (ACC)
 Enterprise (ET)
 Finance (FIN)
 Industrial Relations and Organisational Behaviour (IROB)
 Marketing and Strategic Management (MSM)
 Operations Management (OM)
 Operational Research and Management Sciences (ORMS)
 Information Systems Management (ISM)
 Public Management and Policy (PMP)

Research Centres

Centre for Management under Regulation (CMuR)
 Centre for Small and Medium-sized Enterprises (CSME)
 Financial Econometrics Research Centre (FERC)
 Financial Options Research Centre (FORC)
 Governance & Public Management Research Centre (GPMRC)
 Unit for the study of Innovation, Knowledge and Organisational Networks (IKON)
 Industrial Relations Research Unit (IRRU)
 Local Government Centre (LGC)

WBS is also host to the ESRC's major research programme:
 Evolution of Business Knowledge Programme (EBK)

There are also two institutes which act as umbrella groups for a range of subject specific research activities:

Institute of Governance and Public Management (IGPM)
Warwick Finance Research Institute (WFRI)

Special Interest Groups

Economics Special Interest Group (ESIG)
Sales and Account Management Research Unit (SAMS)
Strategy, Organisational Learning and Research Unit (SOLAR)
Supply Strategy Research Unit (SSRU)
Technological Innovations Research Unit (TIRU)
Warwick E-Business Forum

Educational Programmes

Warwick Business School prides itself on its wide-ranging and innovative portfolio of educational programmes. There are no less than seventeen programmes leading to formal qualifications and a large, and growing, continuing education programme for executives.

The programmes range from the highly successful undergraduate courses (e.g. BSc Accounting and Finance, BSc Management, BSc International Business), where applications outstrip places by more than 10 to 1, to specialist Masters', through to the much sought after MBA qualification (which can be taken either full-time or part-time, locally or by distance learning), the Warwick MPA (the public sector MBA, which can be taken in modular or full-time modes), the Warwick Executive Programme and a growing number of public management diplomas and leadership programmes.

In line with our emphasis on developing the next generation of business and management academics, we also have a vibrant Doctoral Programme with around 180 students.

In total the School has some 7,500 registered students of whom over 2,700 are on the MBA programmes.

Research

WBS is a research-oriented School. We achieved a rating of 5* (reflecting research of international excellence involving more than 90% of academic staff) in the UK's most recent 2001 Research Assessment Exercise. Annual research income is approximately £3 million. In addition to research-active staff in subject groups, there are over 50 academic research staff employed in research centres. Several subject groups also have active research groupings.

International linkages are a growing feature of our research. Results are disseminated in many ways; in addition to conventional academic output, research results are provided to practitioners through conferences, written papers and our website.

All academic staff are encouraged to participate in the work of research centres or of less formal groupings and to engage with intellectual activities through seminars and other means. They are also encouraged to make bids for research funds, and we have a support structure to help colleagues prepare bids and manage grants and contracts. In addition to normal mechanisms for research support, we have recently launched a fund dedicated to supporting high quality research.

Support for Professional Development

The University and the School have well-developed mechanisms for supporting professional development for both academic and non-academic staff. These include schemes such as study leave opportunities, a Staff Development Programme, a Research and Innovations Fund and support for Conference attendance. Warwick Business School sets aside over £100,000 of its own funding each year to support research activity.

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For more information about Warwick Business School, please see our website at: <http://www.wbs.ac.uk/>

Informal enquires about this post may be made to Dr Nalan Gulpinar (02476 524491) on email address Nalan.Gulpinar@wbs.ac.uk

Recruitment of Ex-Offenders Policy

(Developed in line with the CRB Disclosure information pack, part DIP011)

This Policy applies to all staff recruitment at the University of Warwick.

As an organisation using the Criminal Records Bureau (CRB) Disclosure service to assess applicants' suitability for positions of trust, the University of Warwick complies fully with the CRB Code of Practice and undertakes to treat all applicants for positions fairly. It undertakes not to discriminate unfairly against any subject of a Disclosure on the basis of a conviction or other information revealed.

The University of Warwick is committed to the fair treatment of its staff, potential staff or users of its services, regardless of race, gender, religion, sexual orientation, responsibilities for dependants, age, physical/mental disability or offending background.

Our written policy on the recruitment of ex-offenders is made available to all applicants at the outset of the recruitment process.

We actively promote equality of opportunity for all with the right mix of talent, skills and potential and welcome applications from a wide range of candidates, including those with criminal records. We select all candidates for interview based on their skills, qualifications and experience.

A Disclosure is only requested after a thorough risk assessment has indicated that one is both proportionate and relevant to the position concerned. For those positions where a Disclosure is required, all application forms, job adverts and recruitment briefs will contain a statement that a Disclosure will be requested in the event of the individual being offered the position.

Where a Disclosure is to form part of the recruitment process, we encourage all applicants called for interview to provide details of their criminal record at an early stage in the application process. We request that this information is sent under separate, confidential cover, to a designated person within the University of Warwick and we guarantee that this information will only be seen by those who need to see it as part of the recruitment process.

Unless the nature of the position allows the University of Warwick to ask questions about the applicants entire criminal record, we only ask about 'unspent' convictions as defined in the Rehabilitation of Offenders Act 1974.

We ensure that all appropriate staff in Personnel Services at the University of Warwick who are involved in the recruitment process have been suitably trained to identify and assess the relevance and circumstances of offences. We also ensure that they have received appropriate guidance in the relevant legislation relating to the employment of ex-offenders, e.g. the Rehabilitation of Offenders Act 1974. Line managers are advised who to approach for support on these issues.

At interview, or in a separate discussion, we ensure that an open and measured discussion takes place on the subject of any offences or other matter that might be relevant to the position. Failure on the part of the applicant to reveal information that is directly relevant to the position sought could lead to withdrawal of an offer of employment.

We make every subject of a CRB Disclosure aware of the existence of the CRB Code of Practice and make a copy available on request.

We undertake to discuss any matter revealed in a Disclosure with the person seeking the position before withdrawing a conditional offer of employment.

We do not accept Disclosures transferred from other organisations and do not supply Disclosures requested by us to any external organisations.